

**Amendments to the Claims:**

Please cancel claims 1-16. This listing of claims will replace all prior versions, and listings of claims in the application:

**Listing of Claims:**

1-16. (Canceled)

17. (Original) An antibody that specifically binds CD22, said anti-CD22 antibody having a variable light (VL) chain comprising three complementarity determining regions (CDRs), and a variable heavy (VH) chain comprising three CDRs, wherein (i) said VL chain CDR1 has a sequence selected from the group consisting of SEQ ID NOs:7, 8, 9, and 10, (ii) said VL CDR2 has the sequence of SEQ ID NO:11, (iii) said VL CDR3 has the sequence of SEQ ID NO:12, (iv) said VH CDR1 has the sequence of SEQ ID NO:13, (v) said VH CDR2 has the sequence of SEQ ID NO:14, and (vi) said VH CDR3 has a sequence selected from the group consisting of SEQ ID NOs:15, 16, 17, 18, and 19.

18. (Original) An anti-CD22 antibody of claim 17, wherein said VL CDR1 has the sequence of SEQ ID NO:7.

19. (Original) An anti-CD22 antibody of claim 17, wherein said VH CDR3 has the sequence of SEQ ID NO:16.

20. (Original) An anti-CD22 antibody of claim 17, wherein said VL chain has the sequence of SEQ ID NO:20.

21. (Original) An anti-CD22 antibody of claim 17, further wherein said VL CDR1 has the sequence of SEQ ID NO:7 and said VH CDR3 has the sequence of SEQ ID NO:16.

22. (Currently amended) An anti-CD22 antibody of claim [[5]] 17, wherein said VH chain has the sequence of SEQ ID NO:21.

23. (Original) An anti-CD22 antibody of claim 17, wherein said VL chain has the sequence of SEQ ID NO:20 and said VH chain has the sequence of SEQ ID NO:21, except that, optionally, said VL chain has a cysteine in place of glycine at position 100 and said VH chain has a cysteine in place of arginine at position 44, as these positions are numbered according to the "Kabat Numbering" shown in Figures 2 and 3, respectively.

24. (Original) An anti-CD22 antibody of claim 17, wherein said antibody is selected from the group consisting of an scFv, a dsFv, a Fab, or a F(ab')<sub>2</sub>.

25. (Original) A chimeric molecule comprising a therapeutic moiety or detectable label conjugated or fused to an antibody that specifically binds CD22, said anti-CD22 antibody having a variable light (VL) chain comprising three complementarity determining regions (CDRs), and a variable heavy (VH) chain comprising three CDRs, wherein (i) said VL chain CDR1 has a sequence selected from the group consisting of SEQ ID NOs:7, 8, 9, and 10, (ii) said VL CDR2 has the sequence of SEQ ID NO:11, (iii) said VL CDR3 has the sequence of SEQ ID NO:12, (iv) said VH CDR1 has the sequence of SEQ ID NO:13, (v) said VH CDR2 has the sequence of SEQ ID NO:14, and (vi) said VH CDR3 has a sequence selected from the group consisting of SEQ ID NOs:15, 16, 17, 18, and 19.

26. (Original) A chimeric molecule of claim 25, wherein said VL CDR1 has the sequence of SEQ ID NO:7.

27. (Original) A chimeric molecule of claim 25, wherein said VH CDR3 has the sequence of SEQ ID NO:16.

28. (Original) A chimeric molecule of claim 25, wherein said VL chain has the sequence of SEQ ID NO:20.

29. (Original) A chimeric molecule of claim 25, further wherein said VL CDR1 has the sequence of SEQ ID NO:7 and said VH CDR3 has the sequence of SEQ ID NO:16.

30. (Original) A chimeric molecule of claim 25, wherein said VH chain has the sequence of SEQ ID NO:21.

31. (Original) A chimeric molecule of claim 25, wherein said VL chain has the sequence of SEQ ID NO:20 and said VH chain has the sequence of SEQ ID NO:21, except that, optionally, said VL chain has a cysteine in place of glycine at position 100 and said VH chain has a cysteine in place of arginine at position 44, as these positions are numbered according to the "Kabat Numbering" shown in Figures 2 and 3, respectively.

32. (Original) A chimeric molecule of claim 25, wherein said antibody is selected from the group consisting of an scFv, a dsFv, a Fab, or a F(ab')<sub>2</sub>.

33. (Original) A chimeric molecule of claim 25, wherein the therapeutic moiety is selected from the group consisting of a cytotoxin, a drug, a radioisotope, or a liposome loaded with a drug or a cytotoxin.

34. (Original) A chimeric molecule of claim 33, wherein the therapeutic moiety is a cytotoxin selected from the group consisting of ricin A, abrin, ribotoxin, ribonuclease, saporin, calicheamycin, a mutated diphtheria toxin, a mutated *Pseudomonas* exotoxin A ("PE"), and botulinum toxins A through F.

35. (Original) A chimeric molecule of claim 34, wherein said mutated PE is selected from the group consisting of PE35, PE38, PE38KDEL, PE40, PE4E, and PE38QQR, optionally in which said mutated PE has a glycine, alanine, valine, leucine, or isoleucine residue rather than an arginine residue at a position corresponding to position 490 of SEQ ID NO:24.

36. (Original) A chimeric molecule of claim 25, wherein said arginine residue at a position corresponding to position 490 of SEQ ID NO:24 is replaced by alanine.

37. (Original) A composition comprising (a) a pharmaceutically acceptable carrier and (b) a chimeric molecule comprising an antibody conjugated or fused to a therapeutic moiety or a detectable label, wherein said antibody specifically binds CD22, said anti-CD22 antibody has a variable light (VL) chain comprising three complementarity determining regions (CDRs), and a variable heavy (VH) chain comprising three CDRs, further wherein (i) said VL chain CDR1 has a sequence selected from the group consisting of SEQ ID NOs:7, 8, 9, and 10, (ii) said VL CDR2 has the sequence of SEQ ID NO:11, (iii) said VL CDR3 has the sequence of SEQ ID NO:12, (iv) said VH CDR1 has the sequence of SEQ ID NO:13, (v) said VH CDR2 has the sequence of SEQ ID NO:14, and (vi) said VH CDR3 has a sequence selected from the group consisting of SEQ ID NOs:15, 16, 17, 18, and 19.

38. (Original) A composition of claim 37, wherein said VL CDR1 has the sequence of SEQ ID NO:7 and said VH CDR3 has the sequence of SEQ ID NO:16.

39. (Original) A composition of claim 37, wherein the therapeutic moiety is selected from the group consisting of a cytotoxin, a drug, a radioisotope, or a liposome loaded with a drug or a cytotoxin.

40. (Original) A composition of claim 37, wherein the therapeutic moiety is a cytotoxin selected from the group consisting of ricin A, abrin, ribotoxin, ribonuclease, saporin, calicheamycin, diphtheria toxin or a cytotoxic subunit or mutant thereof, a mutated *Pseudomonas* exotoxin A ("PE"), and botulinum toxins A through F.

41. (Original) A composition of claim 40, wherein said PE is selected from the group consisting of PE35, PE38, PE38KDEL, PE40, PE4E, and PE38QQR, and optionally, said mutated PE has a glycine, alanine, valine, leucine, or isoleucine residue rather than an arginine residue at a position corresponding to position 490 of SEQ ID NO:24.

42. (Original) A composition of claim 41, wherein said arginine residue at a position corresponding to position 490 of SEQ ID NO:24 is replaced by alanine.

43. (Original) An isolated nucleic acid encoding an antibody that specifically binds CD22, said anti-CD22 antibody has a variable light (VL) chain comprising three complementarity determining regions (CDRs), and a variable heavy (VH) chain comprising three CDRs, further wherein (i) said VL chain CDR1 has a sequence selected from the group consisting of SEQ ID NOs:7, 8, 9, and 10, (ii) said VL CDR2 has the sequence of SEQ ID NO:11, (iii) said VL CDR3 has the sequence of SEQ ID NO:12, (iv) said VH CDR1 has the sequence of SEQ ID NO:13, (v) said VH CDR2 has the sequence of SEQ ID NO:14, and (vi) said VH CDR3 has a sequence selected from the group consisting of SEQ ID NOs:15, 16, 17, 18, and 19.

44. (Original) An isolated nucleic acid of claim 43, wherein said VL CDR1 has the sequence of SEQ ID NO:7 and said VH CDR3 has the sequence of SEQ ID NO:16.

45. (Original) A nucleic acid of claim 43, wherein said VL chain has the sequence of SEQ ID NO:20 and said VH chain has the sequence of SEQ ID NO:21, except that, optionally, said VL chain has a cysteine in place of glycine at position 100 and said VH chain has a cysteine in place of arginine at position 44, as these positions are numbered according to the "Kabat Numbering" shown in Figures 2 and 3, respectively.

46. (Original) A nucleic acid of claim 43, further wherein said nucleic acid encodes a polypeptide which is a therapeutic moiety or a detectable label.

47. (Original) A nucleic acid of claim 46, further wherein said therapeutic moiety is a mutated *Pseudomonas* exotoxin A ("PE") selected from the group consisting of PE35, PE38, PE38KDEL, PE40, PE4E, and PE38QQR, and optionally, said mutated PE has a

glycine, alanine, valine, leucine, or isoleucine residue rather than an arginine residue at a position corresponding to position 490 of SEQ ID NO:24.

48. (Original) An expression vector comprising a promoter operably linked to a nucleic acid encoding an antibody that specifically binds CD22, said anti-CD22 antibody has a variable light (VL) chain comprising three complementarity determining regions (CDRs), and a variable heavy (VH) chain comprising three CDRs, further wherein (i) said VL chain CDR1 has a sequence selected from the group consisting of SEQ ID NOs:7, 8, 9, and 10, (ii) said VL CDR2 has the sequence of SEQ ID NO:11, (iii) said VL CDR3 has the sequence of SEQ ID NO:12, (iv) said VH CDR1 has the sequence of SEQ ID NO:13, (v) said VH CDR2 has the sequence of SEQ ID NO:14, and (vi) said VH CDR3 has a sequence selected from the group consisting of SEQ ID NOs:15, 16, 17, 18, and 19.

49. (Original) An expression vector of claim 48, further wherein said nucleic acid encodes a polypeptide which is a therapeutic moiety or a detectable label.

50. (Original) A method of inhibiting growth of a CD22+ cancer cell by contacting said cell with a chimeric molecule comprising (a) an antibody that binds to CD22, said anti-CD22 antibody has a variable light (VL) chain comprising three complementarity determining regions (CDRs), and a variable heavy (VH) chain comprising three CDRs, further wherein (i) said VL chain CDR1 has a sequence selected from the group consisting of SEQ ID NOs:7, 8, 9, and 10, (ii) said VL CDR2 has the sequence of SEQ ID NO:11, (iii) said VL CDR3 has the sequence of SEQ ID NO:12, (iv) said VH CDR1 has the sequence of SEQ ID NO:13, (v) said VH CDR2 has the sequence of SEQ ID NO:14, and (vi) said VH CDR3 has a sequence selected from the group consisting of SEQ ID NOs:15, 16, 17, 18, and 19 and, (b) a therapeutic moiety, wherein, following said contacting, said therapeutic moiety inhibits growth of said cell.

51. (Original) A method of claim 50, further wherein said VL CDR1 has the sequence of SEQ ID NO:7 and said VH CDR3 has the sequence of SEQ ID NO:16.

52. (Original) A method of claim 50, wherein said VL chain has the sequence of SEQ ID NO:20 and said VH chain has the sequence of SEQ ID NO:21, except that, optionally, said VL chain has a cysteine in place of glycine at position 100 and said VH chain has a cysteine in place of arginine at position 44, as these positions are numbered according to the "Kabat Numbering" shown in Figures 2 and 3, respectively.

53. (Original) A method of claim 50, wherein said antibody is selected from the group consisting of an scFv, a dsFv, a Fab, or a F(ab')<sub>2</sub>.

54. (Original) A method of claim 50, wherein said therapeutic moiety is selected from the group consisting of a cytotoxin, a drug, a radioisotope, or a liposome loaded with a drug or a cytotoxin.

55. (Original) A method of claim 54, wherein the therapeutic moiety is a cytotoxin selected from the group consisting of ricin A, abrin, ribotoxin, ribonuclease, saporin, calicheamycin, a mutated diphtheria toxin, a mutated *Pseudomonas* exotoxin A ("PE"), and botulinum toxins A through F.

56. (Original) A method of claim 55, wherein said PE is selected from the group consisting of PE35, PE38, PE38KDEL, PE40, PE4E, and PE38QQR and, optionally, has a glycine, alanine, valine, leucine, or isoleucine residue in place of an arginine residue at a position corresponding to position 490 of SEQ ID NO:24.

57. (Original) A method of claim 56, wherein said arginine residue at a position corresponding to position 490 of SEQ ID NO:24 is replaced by alanine.

58. (Original) A method for detecting the presence of a CD22<sup>+</sup> cancer cell in a biological sample, said method comprising:

(a) contacting cells of said biological sample with an antibody that specifically binds to CD22, said anti-CD22 antibody has a variable light (VL) chain comprising three complementarity determining regions (CDRs), and a variable heavy (VH) chain comprising

three CDRs, further wherein (i) said VL chain CDR1 has a sequence selected from the group consisting of SEQ ID NOs:7, 8, 9, and 10, (ii) said VL CDR2 has the sequence of SEQ ID NO:11, (iii) said VL CDR3 has the sequence of SEQ ID NO:12, (iv) said VH CDR1 has the sequence of SEQ ID NO:13, (v) said VH CDR2 has the sequence of SEQ ID NO:14, and (vi) said VH CDR3 has a sequence selected from the group consisting of SEQ ID NOs:15, 16, 17, 18, and 19,

- (b) washing said cells to remove unbound antibody, and
- (c) detecting the presence or absence of bound antibody,

wherein detecting the presence of said antibody indicates the presence of a CD22+ cancer cell in said sample.

59. (Original) A method of claim 58, further wherein said VL CDR1 has the sequence of SEQ ID NO:7 and said VH CDR3 has the sequence of SEQ ID NO:16.

60. (Original) A method of claim 58, further whether said antibody is attached to a detectable label.

61. (Original) A kit for detecting the presence of a CD22+ cancer cell in a biological sample, said kit comprising:

- (a) a container, and
- (b) an antibody that binds to CD22, said anti-CD22 antibody has a variable light (VL) chain comprising three complementarity determining regions (CDRs), and a variable heavy (VH) chain comprising three CDRs, further wherein (i) said VL chain CDR1 has a sequence selected from the group consisting of SEQ ID NOs:7, 8, 9, and 10, (ii) said VL CDR2 has the sequence of SEQ ID NO:11, (iii) said VL CDR3 has the sequence of SEQ ID NO:12, (iv) said VH CDR1 has the sequence of SEQ ID NO:13, (v) said VH CDR2 has the sequence of SEQ ID NO:14, and (vi) said VH CDR3 has a sequence selected from the group consisting of SEQ ID NOs:15, 16, 17, 18, and 19.



62. (Original) A kit of claim 61, further wherein said VL CDR1 has the sequence of SEQ ID NO:7 and said VH CDR3 has the sequence of SEQ ID NO:16.

63. (Original) A kit of claim 61, further wherein said antibody is fused or conjugated to a detectable label.